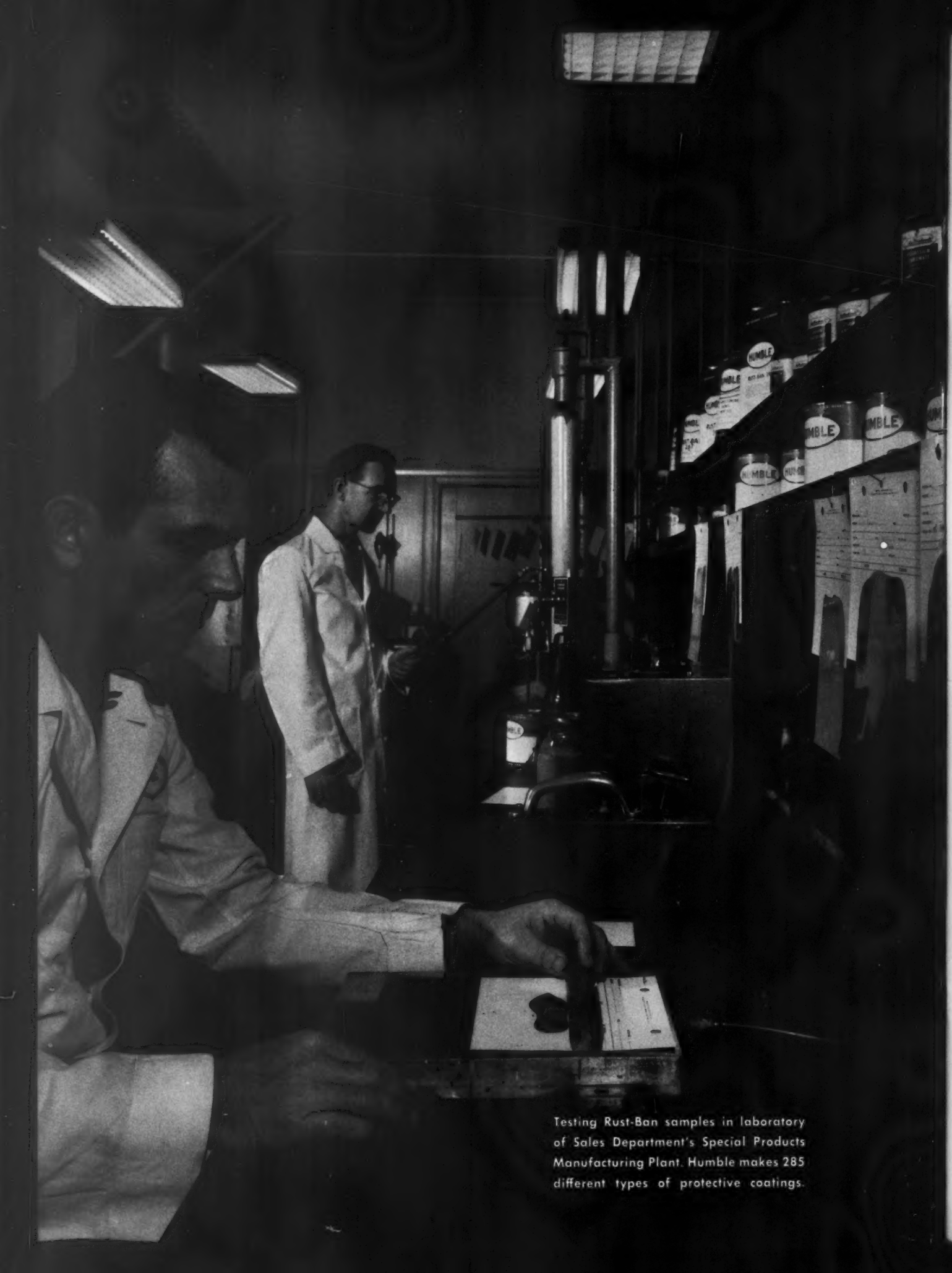
Sawtooth Mountain *Bob Wygant*

The Humble Way

MAY-JUNE, 1958



Testing Rust-Ban samples in laboratory of Sales Department's Special Products Manufacturing Plant. Humble makes 285 different types of protective coatings.

The Humble Way
May-June 1958
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President Davis Reports To Shareholders At Annual Meeting

AT THE 41st annual shareholders' meeting, held May 12 in Houston, Humble President Morgan J. Davis reviewed the Company's operations for 1957 and early 1958, and discussed the general prospects for the future.

As a preamble to his remarks, he paid tribute to former President Hines H. Baker, who retired last year and accepted the position of vice president and director of Standard Oil Company (New Jersey); and to Humble's former Chairman of the Board J. A. Neath, who died last November.

"All of us in Humble's management have sorely missed the counsel and guidance of both these men during the past year," Mr. Davis said.

Following is a condensation of the remainder of President Davis' remarks to the shareholders:

I want to review briefly some of the major developments of the past year and, in the light of these developments, consider our prospects for the future.

I am very much conscious, as I am sure you are, of the sharp contrast between the economic setting for last year's annual meeting and that in which we find ourselves today. At this time last year, the nation's economy was still moving along under a sizeable head of steam and the signs of today's recession were barely discernible. We had 16 producing days in Texas. We now have only eight. The state's oil production rate was more than three million barrels a day. Today, it is little more than two million.

As 1957 began, however, there was little to indicate that it would soon give rise to such an abrupt and unfavorable change in operating conditions.

The Suez Canal had been closed for two months, and there was a strong and insistent demand for more American oil. The demand from Humble's own customers had jumped more than 50 per cent and the Company was hard pressed to meet this demand. Early in January, then, to attract more oil to supply its customers, and also because of certain basic long-term considerations, Humble raised its posted prices for crude—the first such general price increase since 1953.

This long overdue price increase, coupled with heavy demand and declining inventories, made the outlook for the domestic industry brighter than it had been in some time.

We were not very far along into the second quarter, however, before conditions took a turn for the worse. With the reopening of the Suez Canal, there was a rapid decline in the export market. Imports of foreign crude were resumed at record levels, thus reducing even further the demand for domestic oil. At about the same time, it became apparent that domestic demand was not living up to expectations. The result was that inventories started rising again, and this in turn contributed to a weakness in product prices and to sporadic price wars.

In spite of this downward trend, Humble's operations during the first half of the year averaged out at a high level. Net income for the first six months was $107,788,500—second highest in the Company's history.

During the second half of the year, however, the downswing began to gain momentum. There were several reasons for this acceleration. One was the growing general business recession, with its adverse effect on demand. Another was the impact of higher imports. Still another was the

Shareholders at annual meeting listen attentively as President Davis reviews the Company's operations for 1957 and the early months of 1958, and discusses the outlook for the future.

industry's apparent reluctance to adjust downward from the high level of operations which had prevailed during the Suez crisis. And, finally, the industry failed to recognize soon enough an undesirable inventory situation.

The net end result was a severe cutback in domestic production, particularly in Texas, where restriction to market demand has a greater impact than in other oil-producing states. In July the number of producing days in Texas was reduced to 13; and in October there was a further reduction to 12 producing days.

AT THE end of the year, Humble was producing a net of only 329,600 barrels a day, or less than half of its maximum efficient rate of production. For all of 1957, the Company's net production of crude oil averaged 360,600 barrels a day, or 2.8 per cent less than in 1956.

The change in economic conditions also affected our other operations. The cutback in Texas crude production, for example, brought a sharp drop in Humble's pipeline deliveries. At the Baytown refinery, our crude runs fell to the lowest level since 1954. Our petrochemical sales were also down, largely because of the reduced demand for Butyl rubber and butadiene, but this was partially offset by an increased demand for paraxylene. In marketing, Humble led the state for the sixth straight year in tax-paid gasoline sales. We also increased our sales in New Mexico. Our marketing profits were somewhat lower, however, because of price wars and highly competitive conditions which developed during the second half of the year.

The really bright spot in our 1957 picture was natural gas. For the year, our revenue from natural gas sales showed a 19 per cent increase.

The over-all effect of our reduced operations was accentuated by some sizeable increases in operating costs. Employment costs, for example, rose more than $16,000,000, the principal reasons being the larger number of employees on the payroll, the 6 per cent general wage increase granted in May, and an increase in the Company's contribution to annuities. Dry hole costs also showed a significant increase. They rose from $48,000,000 in 1956 to a new high in 1957 of almost $62,000,000. Surrendered lease costs were more than double those of 1956.

Our exploratory drilling during the year was moderately successful. The Company again added to its proved reserves of both crude oil and natural gas, bringing both to an all-time high. The addition to our natural gas reserves was particularly gratifying. As for oil, the I.A.B. field in Coke County was probably our most significant find of the year. This discovery shows promise of being a field of major proportions. The Company also started drilling its first well in Alaska, a scheduled 12,500-foot wildcat which is part of a trade to earn a one-half interest in a large lease block assembled by Shell Oil. This well has now reached a depth of about 11,000 feet and has had several showings of oil and gas, though none has been commercial.

Our capital expenditures last year reached a new high of $235,395,400, which was some $51,000,000 more than in 1956 and $25,000,000 above the previous high in 1955. Most of the increase in capital expenditures went into refinery expansion, but a step-up in offshore development drilling was another significant factor.

Our net income for the year was $175,910,400, or $2.45 a share after the two-for-one stock split of last May. This was down slightly from the $178,961,100, or $2.49 a share, earned in 1956, in spite of a substantial increase during the year in the shareholders' total investment.

So much for 1957, which is more adequately reported upon in our annual report. Now I am sure you would like a brief look at 1958 as it looks today.

The adverse conditions responsible for the decline in our second-half operations have continued into 1958, and had a considerable impact upon the Company's earnings and operations in the quarter that ended March 31. However, in comparing the first quarter of 1958 with that of 1957, we should bear in mind that the first three months of last year covered a period of abnormally high activity.

With that in mind, let's take a look at the first quarter data:

(Here Mr. Davis reviewed the figures shown in the accompanying table.)

TO THESE highlights, Mr. Davis added a few details on the results of exploratory drilling covering the first four months of the year.

During this four-month period, we drilled 16 rank wildcats and got one oil and three gas discoveries for a success rate of 25 per cent. The Company also drilled 12 field wildcats in which the percentage of success was much higher since three of them discovered new oil reserves and five found additional gas reserves.

For 1958, Humble has budgeted about one-third less money to be spent on drilling than in 1957. On the first of this month, we had 57 rigs active on Humble-operated wells. On May 1, 1957, we had 117 rigs active—60 more than we have today. With Hum-

ble's wells now producing at a small fraction of their maximum efficient rate, there is little short-term incentive to drill a large number of field development wells. Notwithstanding drilling cutbacks, however, geological and geophysical exploration, as well as exploration research, are continuing at a normal level.

Capital expenditures for the current year were budgeted in February at $174,987,000, a reduction of $60,408,000 or 25.7 per cent from those of 1957.

From the report I have given you, it is clear that not only Humble, but also the entire domestic industry, is faced with some serious problems.

In Texas, prorated wells are now being limited to about 26 per cent of their maximum efficient rate. Even for the entire United States, current production is only about 60 per cent of capacity. These current levels, which represent a further drop from the first quarter, are adversely affecting not only net income but also exploration and finding as well.

FORTUNATELY, however, the present reduction in production is helping to correct part of the burdensome accumulation of inventories which occurred during 1957. After inventories reach normal working levels, which should be within a few months, additional production should be possible even if demand shows no improvement over last year. Any major improvement in production will depend upon an improvement in general business conditions and a substantial increase in demand. Naturally we hope the business upturn will come this year and that the fourth quarter demand will show some increase over last year.

The present depressed condition of the domestic industry has led the President to call for a reduction of crude oil imports to the level of about 713,000 barrels daily in the area east of California. This is a step in the right direction, since it should keep crude imports east of the Rockies below the levels of 1956 and 1957. However, only experience over the next few months will show whether the amount of imports presently authorized is consistent with a healthy domestic industry.

IN my opinion, past experience has proved that the President's Cabinet Committee was justified when, in 1955, it concluded that excessive imports could impair the incentive to develop domestic resources and thus constitute a threat to national defense. The committee set the dividing line at the ratio that imports bore to domestic production in 1954.

We sincerely hope that a proper level of imports—one consistent with a healthy domestic industry and with national security—will result from the general procedures now being used by the President. If the present program fails, however, we hope that more effective measures will be promptly applied.

Another problem still with us is that of federal control over natural gas. Almost four years have passed since the Supreme Court, in its 1954 decision in the Phillips Case, imposed federal regulation upon independent producers selling natural gas in interstate commerce. So far, all legislative efforts to soften the impact of this decision have proved unsuccessful. And it now appears that the Harris-O'Hara bill stands little chance of getting through the present Congress.

As of today, the prices being collected by Humble under its interstate sales are subject to review by the Federal Power Commission. For nearly two years, members of the Commission staff have been investigating Humble's cost of producing gas. These data are for use in a rate hearing which presumably will determine the ultimate prices to be allowed on our interstate sales. During 1957, the first phase of that hearing was started. It may take an additional two years before the full hearing on Humble's prices is completed.

Contractual periodic increases in prices under Humble's existing contracts must, under Commission procedure, have its approval before they become effective. As of January 1 of this year, Humble had such suspended price increases amounting to about $3,254,000 per year.

While our Company recognizes the urgency for legislative action to clear up the present natural gas problem, it has long had in mind that the most immediate relief lies in sales to intrastate customers. We have, therefore, been moving vigorously ahead on a program to expand our intrastate markets. Our 30-inch transmission line from Southwest Texas to the Houston area, which will be completed by 1960, is part of this program.

ONE of our most important problems involves rising costs and methods for combatting these costs.

Among the most promising fields for reduction of costs are these: development of both oil and gas fields on wider spacing; allocation of allowables within new fields on a basis that would give more weight to reserves and less to numbers of wells; and further technological developments which will allow successful production from several pay horizons at the same time within the same bore hole, as well as engineering advances which will permit drilling economical slim-holes and more rapid completion of deep wells.

Beginning in the fall of 1956, a

FIRST QUARTER OPERATIONS—1958

	1st Quarter 1958	Change from 1st Quarter 1957	Per Cent Change
Net income—$000	$ 32,300	—$25,900	—44.5
Net income per share—$	$.45	—$.36	—44.7
Texas producing days	32	—17	—34.7
Net crude and condensate production—B/D	306,400	—93,400	—23.4
Natural gas sales—Mcf/D	1,287,000	135,000	11.7
Crude oil refined—B/D	203,000	—45,300	—18.2
Trunk line deliveries—B/D	595,300	—175,800	—22.8
Gasoline sales—000 Gals.	145,600	—5,000	—3.3
Wells completed by Humble	146	—55	—27.4

PROGRESS REPORT ON SULPHUR DEVELOPMENT

IN RESPONSE to a question from the floor during the annual shareholders' meeting, President Davis reviewed progress in the development of Humble's offshore sulphur discovery at Grand Isle.

He explained that this is a large and very rich deposit of sulphur, so situated as to lend itself to convenient mining. After careful study, Humble's management concluded it would be to the Company's interests to make an arrangement whereby one of the large sulphur companies would mine the deposit and market the sulphur. After discussions with several sulphur companies, Humble reached a satisfactory agreement with Freeport Sulphur Company.

"We think we have been quite fortunate in working out this profit-sharing plan with them," Mr. Davis said. "Basically it is a 50-50 type arrangement under which we share in approximately half of the profits, and Freeport Sulphur Company puts up the capital."

Pointing out that the sulphur company has gone ahead with plans and fabrication of facilities to be placed at Grand Isle, Mr. Davis said actual installation of some of the facilities should begin within the next few months.

"We have been impressed by the thoroughness and technical ability this company has displayed within its organization," he said.

"We do not think sulphur will be mined before late in 1960 or the early part of 1961," Mr. Davis added. "This is a mine from which it would be reasonable to expect 1,000 tons of sulphur per day. Actually, we think it is large enough to support twice that amount, but certainly 1,000 tons per day."

study of the entire Company organization in all departments was initiated by Mr. Hines Baker. This study has been actively carried forward during 1957 and is still progressing. This project is directed toward increasing efficiency of the Company's work force with emphasis on decentralization where further delegation of authority appears to be in the best interest of the Company. The starting place for this study was at the level of upper management but has reached into every department at all levels. Such changes in organization which have already been effected have been enthusiastically sponsored by the departments involved and it is believed that some worthwhile and lasting results have been and will be accomplished.

SINCE there has been a good deal of conjecture about Humble's manpower situation during the present economic recession, it is perhaps timely that we touch on this subject. As you doubtless know, it has long been Humble's policy to avoid drastic or sudden reductions in personnel. It became apparent, however, some months ago that a surplus of employees existed or would shortly develop in our Company. Accordingly a study was made to determine the most effective way of eliminating this surplus, and attention was directed to methods which would have the least impact on morale and on long-service employees. In view of the fact that there had been numbers of requests from long-service employees for special consideration on early retirements, and because of the surplus in personnel which appeared to be developing, the Company decided as an initial step to permit eligible employees between the ages of 55 and 65 to request special early retirement. A formula was devised to remain in effect over a limited period under which the impact of discounts in annuities normally brought about by early retirement was materially lessened. We are now estimating that over 400 employees will take advantage of the special program before it expires on July 31, 1958, based on the interest shown in this voluntary program through applications and requests already granted. This program, coupled with an employment policy which will substantially curtail new employments during the current year is, together with normal turnover, expected to bring Humble's work force well into line by the first of the coming year. It should be said, however, that because of the reduction in drilling and some other activities, it has been necessary to lay off some extremely short-service employees. Most of those in this category were employees with less than one year's service, but even in these cases the Company is making every effort to hold terminations to a minimum.

It may seem to you that the picture I have attempted to give you of the first part of 1958 and forecasts for the rest of the year are quite discouraging. I would like to say, however, that we would prefer to call this a realistic appraisal rather than an expression of discouragement because, while we are disappointed that business conditions have not taken a turn for the better before now, we are only temporarily pessimistic, as we believe that long-range prospects continue to be most favorable. Our organization is strong and our Company is in a sound financial position. Our reserves of oil and gas are at an all-time high—a recent estimate shows that our proved reserves of recoverable crude oil still in the ground amount to more than one and one-quarter barrels for each barrel of oil that Humble has already produced during its 41-year history. We believe these circumstances place us in an excellent position to benefit from the future increases in the demand for domestic petroleum which we believe will surely develop.

In closing, let me thank you once again for your presence here. In all the years that I have been with Humble, there has always been a remarkably harmonious and cooperative spirit among all segments of the Company—shareholders, employees, and management. With such a spirit still evident, we can, I think, look with confidence to the future.

Paul E. Poe, below, Houston convention co-chairman and Beaumont service station manager, was former sales representative for a heavy equipment company. He is a Mason and active in Methodist church work. Mr. Poe recently served term as state director of the Texas Service Stations Associated.

Jim Smith, left, experienced station manager in Dallas, presided over the Northeast Division convention. He is vice president of White Rock Kiwanis Club and Chamber of Commerce, heads YMCA membership drive, is member of Texas-New Mexico Oil Information Committee, past vice president of Texas Service Stations Associated.

J. L. Bellotte, right, co-chairman of the Southwest Division convention, is well-known Austin businessman. His station is on "drag" near the University of Texas, and he has thousands of friends among the students and alumni. Mr. Bellotte is also past president of the Ben Hur Shrine Patrol in Austin.

Convention of CHAMPIONS

Annual meetings of service station managers help build team spirit that makes Humble retailers No. 1 in Texas

A BYSTANDER would have found it difficult to tell whether the men crowding the registration desk recently in a Dallas hotel lobby were lawyers, merchants, or industry representatives. But two things were apparent: a convention was in the making; and, whatever the profession or trade, its representatives looked successful.

And so they were. For the meeting about to convene was the Northeast Texas version of the Humble Managers' Convention. While introductions were being made and greetings exchanged, no bystander could have failed to sense the cordial atmosphere that pervaded the lobby. His only question might have been: What binds this group so closely? What is the leavening agent? And any one of the group might have given the simple answer: "In the business of selling petroleum products, this is a gathering of champions. For the past seven years Humble has been the leading gasoline marketer in Texas, and this is a part of the team of Humble agents and dealers that has written the record."

Perhaps the explanation for such leadership in marketing is best told by Humble Sales Manager Frank A. Watts: "The Humble service station manager of today is a capable, energetic, and intelligent business man who commands respect for his business philosophy and practices. I cannot say enough for these men. In the last analysis, they are responsible for Humble's enviable position in its retail market."

The annual conventions—one in each of the Sales Department's four division headquarters cities—were begun as a marketing experiment in 1955. Their purpose was to offer a

Harold Lowry, Henrietta station manager and school board member, headed panel at Western Division convention. With 16 years' experience in service station business, he is also active in Chamber of Commerce, Kiwanis Club, Masonic Lodge, VFW, and is sponsor of a Little League Baseball team.

Panel discussions are interesting and informative. Each convention features one panel of dealers and one of Humble Sales management.

means of presenting information on new products and sales techniques to the independent service station managers who serve the motoring public with Humble products. Over the four years the meetings have done this, and more, managers in attendance say. By providing a means for Sales management and station managers to exchange views, the conventions have fostered a feeling of cooperation and fellowship that has proved valuable in attaining common goals.

One successful dealer put it this way: "The spring convention is the highlight of my business year. Getting together with Humble's top people and with other managers makes me realize that I'm part of a team."

The feeling is mutual. Sales Department executives, whose normal schedule keeps them from maintaining close contact with more than a few of almost 3,000 men who sell Humble products through service stations, welcome the opportunity to visit with so many at four major meetings.

This family atmosphere also accounts for the fact that a high percentage of managers bring their wives to the conventions. At home, many wives of dealers and agents are active in the business—as bookkeepers, office managers, and general ambassadors of goodwill. But while the husbands are attending convention business meetings the wives attend planned style shows and teas and coffees, or simply go shopping together. The only evening meeting on the program is largely a social function attended by both husbands and wives.

Exchange of ideas between station managers and Company management people in informal discussions is a valuable adjunct of convention.

Exhibits help station managers keep abreast of developments in products.

Humorous skits, always popular feature of the convention program, emphasize good service and selling methods for station managers.

Still another example of the team spirit is reflected in the method followed in planning the annual conventions. Most of this responsibility rests with Division committees, made up of dealers and agents elected by fellow agents and dealers in each division. These committees meet early each year to decide on the convention theme (the 1958 meeting concentrated on selling techniques), to select speakers, and to recommend the business agenda and entertainment program to be offered. In every case these committees have requested as keynote speakers prominent inspirational leaders, either ministers or educators.

The conventions are staged every spring in four Division headquarters cities—Abilene, San Antonio, Dallas, and Houston—to reduce travel time across the expanse of Humble's marketing area. Distances are still great for some, but almost 1,000 Texas and New Mexico station managers considered it worthwhile to make the trip this year.

For example, one group from Farmington, in the northwest corner of New Mexico, drove more than 1,300 miles round trip to attend the Abilene convention. Only an eagerness to learn new methods and to understand trends in petroleum marketing would prompt service station managers to undertake such a trip.

Among the attractions which are largely responsible for drawing station managers to the conventions each year is the service station managers' panel. This select group of six to eight men answers questions and discusses problems common to most service stations: employee incentive plans, customer service procedures, inventory control, and others.

Probably of equal interest to station managers is the Company management panel. Here Sales management people answer questions asked by managers from the audience, questions which generally call for explanation of Company policies and analysis of industry problems. Regarding this feature, one station manager recently wrote to Sales Manager Frank A. Watts: "I enjoyed all the program, but especially the management panel where the boys ask the hard questions. Top management always answers with no hedging."

To assure continued maximum participation in the conventions by station managers, efforts are made to learn what these men want to hear and see and what they want to take home from these conventions. Immediately following the conclusion of the 1958 meetings a mail survey was directed to all managers who attended. It asked for suggestions and ideas on how to improve the convention for 1959. Survey results will be presented to the dealers and agents who will serve on the planning committee for the 1959 conventions.

It is this sharing of responsibilities and benefits that has made successful business meetings out of what was started as an experiment less than four years ago.

Wives of station managers enjoy style shows and other entertainments planned for them while their husbands attend the sessions.

TWO-IN-ONE OIL WELLS

Dual completions are paving the way for more efficient oil and gas production

DURING World War II, American oilmen were faced with a double-barreled dilemma. They were called upon to increase the nation's supply of oil and gas, but at the same time to decrease their use of steel. And practically everything the oilman needs—casing, drilling rigs and other equipment—is made of steel.

Casting about for ways to lick this problem, the industry's engineers came up with a startling idea. If there isn't enough steel to drill two wells, somebody reasoned, let's make one well do the work of two.

Thus was born the *dual completion*—a wartime brainchild that is now winning a significant place for itself in the oil industry and is being counted on as a potent weapon in the current struggle to offset skyrocketing drilling and production costs.

In principle, the dual completion method is simply to produce from two separate zones at the same time through a single well bore. There have been many technical problems to work out, but with vastly improved equipment and techniques, practically all multi-zone oil and gas fields now have dual completions. Humble has more than 800 dually completed oil and gas wells on production all the way from California to offshore Louisiana. Last year, the Company made 121 dual completions, as compared with 55 in 1956.

On all fronts, dual completions are becoming increasingly attractive to the cost-conscious petroleum industry. In the face of increased drilling costs, mounting development expenses, drastically curtailed allowables, and the necessity of finding an economical means of recovering oil and gas from thin, marginal productive sands, petroleum engineers are turning more and more to this unusual production technique.

How does a dual completion work? How do you get two wells from one hole in the ground?

FIRST, you must find a multi-zone field, one in which oil or gas reservoirs lie trapped deep in the earth in two or more separate and distinct strata—like layers of ham and cheese in a club sandwich. Then you simply drill through the several oil or gas zones; set casing to the bottom; perforate opposite the two best producing strata; and bring the twin streams of oil or gas to the surface simultaneously through separate strings of tubing. (In some wells one stream is produced through the casing itself, the second stream through tubing.)

By use of dual completions, operators can sometimes double the daily oil and gas production in a multi-zone field without materially increasing their steel requirements.

Before the advent of dual completions Humble engineers had two methods of producing a multi-zone field.

The simplest, but most expensive, method was to drill a separate well to each zone and produce the oil or gas from the single completions.

The alternative was to drill and set casing through all of the productive oil or gas sands and then—normally starting at the bottom—produce each zone one at a time. As one reservoir was depleted, it was squeezed off, and a new zone completed and put on production. Some zones might produce for 20 months, others for 20 years or more.

The main advantages offered by dual completions over either type of single completion can be summarized in one word—economics. Dual completions, to put it simply, save the oil industry money.

One way is by cutting drilling expenses. One 8,000-foot hole in the ground obviously costs less than two. A single well that costs $100,000 to drill and complete can be dually completed for only about $15,000 more. In effect, you get two wells for the price of one plus 15 per cent.

Duals also are attractive because they help reduce casing and well equipment costs while increasing daily oil and gas production.

With these and other economies brought on by dual completions, many marginal oil and gas reservoirs which would not otherwise be commercial, may now be produced. This means that millions of barrels of oil and cubic feet of gas are added to the nation's reserves.

Advantages offered by duals are readily apparent in several of Humble's producing fields. Take the Neches Field in East Texas, for example.

IN 1953, Humble discovered two oil reservoirs in the field—the highly productive Woodbine sand and the thin, very marginal Sub-Clarksville sand. Without dually completing wells in this field, the Sub-Clarksville reservoir would be nip and tuck as a profitable operation, engineers calculated. It would cost about as much to develop the reserves from this zone as the recoverable oil would be worth. With a dual completion program in the field, however, the Sub-Clarksville could be produced in commercial volumes.

Conservative estimates of the savings effected by dually completing the 42 Humble-operated Sub-Clarksville wells, as compared to drilling single wells to obtain Sub-Clarksville production, are $1.4 million.

Commercial production from offshore wells also is vitally dependent on dual completions. Without duals, and consequently higher production allowables per hole, the development of some offshore oil and gas fields would not be economically practical.

As one engineer says, "all the advantages of dually completing a well on dry land are often magnified 10-fold when you drill a hole in the Gulf of Mexico."

Dual completions also are being utilized to advantage in many of Humble's older fields. At Village Mills Field near Beaumont, for example, a workover dual completion program is yielding outstanding results. Here a total of 16 old single completions have been reworked and converted into duals. Total cost of this workover program was approximately $110,000. Total increased daily oil production is about 1,800 barrels, making the dual completion workover program pay for itself in less than a month's time.

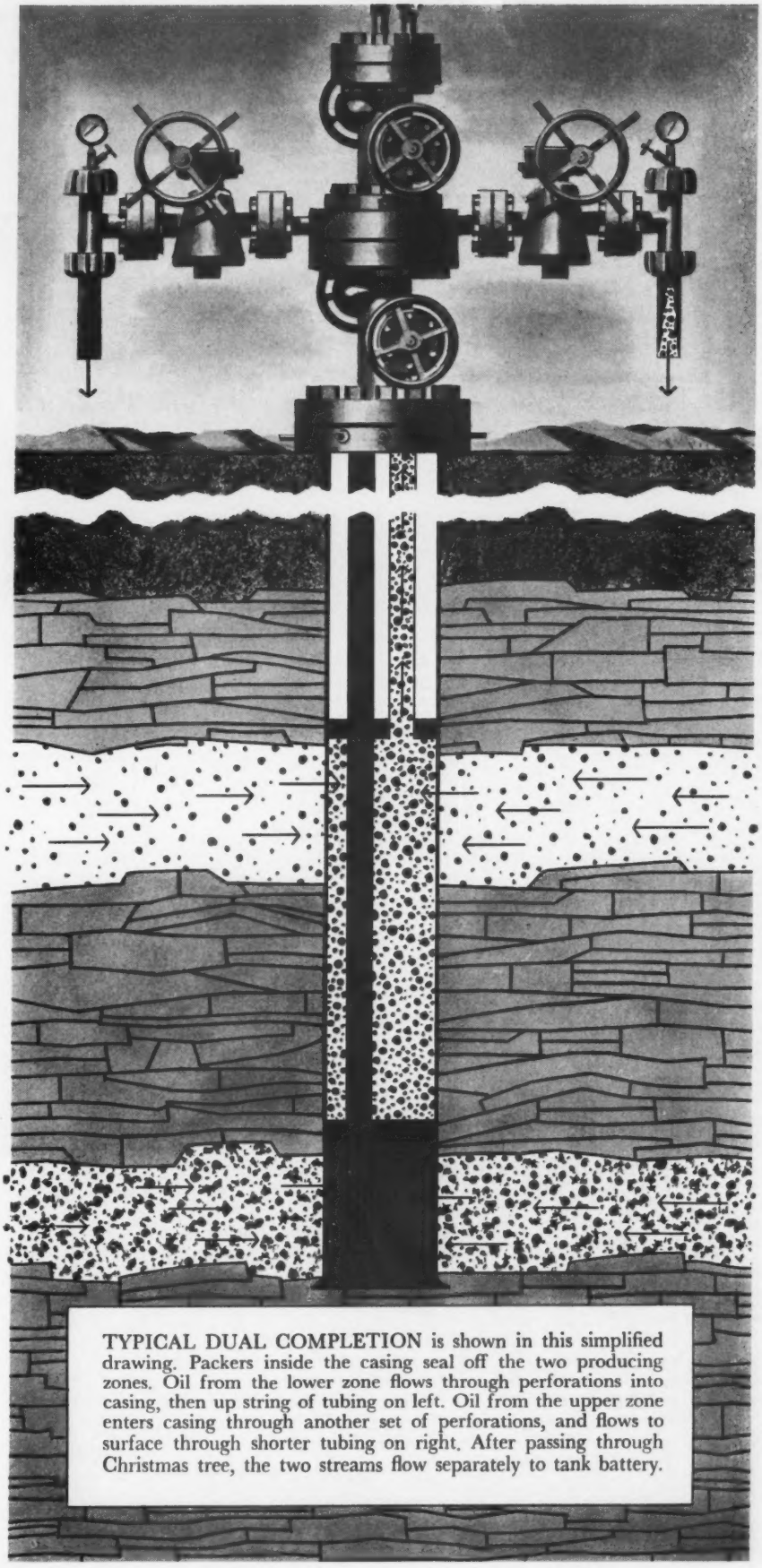
And after dual completions, what's next?

TRIPLE completions—still in the realm of theory only a few years ago—are now being used by some companies, and are gaining recognition as another cost-cutting development. At least five gas wells and 12 oil wells have already been triple-completed in Louisiana, and permits are pending on at least two others in the state. One offshore well was triple-completed recently in 137 feet of water. Humble has not yet had occasion to make a triple completion.

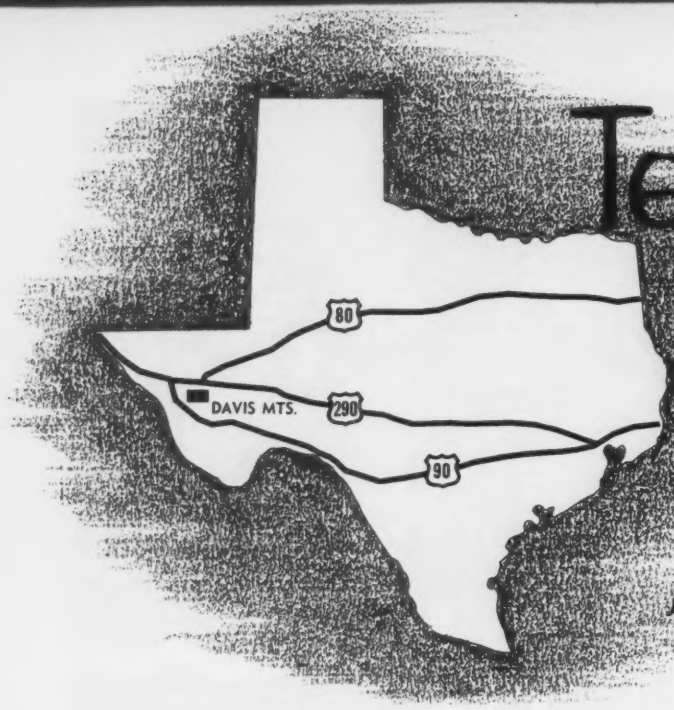
At least one oil company, not Humble, has already accomplished a quadruple completion—four gas reservoirs being produced simultaneously and separately through one well bore. In the opinion of some engineers, quadruple completions probably are the ultimate in the multiple series. Beyond that—in quintuple completions, for example—production problems might be too great.

But no one knows what petroleum scientists will come up with next. Many new developments are just over the horizon.

Only one thing is certain. With wells being drilled deeper and deeper and with costs spiraling upward, multiple completions—including duals—are here to stay.



TYPICAL DUAL COMPLETION is shown in this simplified drawing. Packers inside the casing seal off the two producing zones. Oil from the lower zone flows through perforations into casing, then up string of tubing on left. Oil from the upper zone enters casing through another set of perforations, and flows to surface through shorter tubing on right. After passing through Christmas tree, the two streams flow separately to tank battery.



Texas' Scenic Rooftop

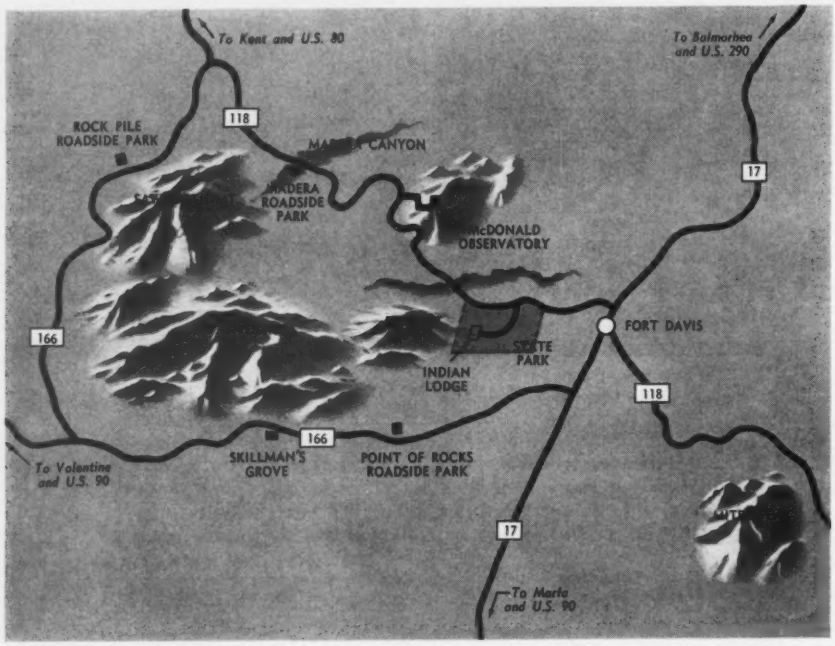
In the Davis Mountains, visitors find a rare combination of spectacular natural beauty and historical interest

WEST of the Pecos River, about midway between the Carlsbad Caverns of New Mexico and the Big Bend of the Rio Grande, a group of rugged mountains rise out of the surrounding plain, looking for all the world like a junior counterpart of the mighty Rockies.

These are the Davis Mountains, the rooftop of Texas, a mile-high plateau surmounted by ridges and towering peaks. Once dreaded by western travelers as the stronghold of fierce Apache raiders, the area is now a favorite spot for tourists and vacationers. It is a delightfully peaceful place of outstanding natural beauty and historical interest.

Travelers get a distant view of the Davis Mountains from any of the three main east-west highways (U.S. 80, 90, 290), but to see the real points of interest you must turn off to Fort Davis and make the 74-mile scenic drive through the heart of the mountain group (see map).

Take the road from Balmorhea to Fort Davis, and you will be following the route taken in 1854 by Lieutenant Colonel Washington Seawell and his six companies of soldiers, under orders to establish a fort in this frontier mountain area.



It's a beautiful drive now, the smooth pavement wending along the floor of Limpia Creek Canyon, past sheer cliffs towering hundreds of feet overhead. But for those soldiers of pioneer days, fighting their way up the canyon under repeated Indian ambush attacks, the scenery probably held little interest. It is easy to imagine what some of those soldiers must have been thinking about the newly-appointed Secretary of War, Jeff Davis, who had ordered the fort to be established, and for whom it was named.

In a few minutes of pleasant driving, you come to the site of Old Fort Davis, nestled between the rocky walls of a box canyon beside Limpia Creek. Poke around among the crumbling walls of adobe and stone buildings, learn something of the story behind this fort, and the surrounding mountains and canyons take on a new interest.

Let the imagination have rein, and you can almost hear the rapid hoofbeats and rumbling wheels of the stage coaches that used to meet here at the crossing of the Overland and Chihuahua Trails. It was to protect the travelers along these routes, and the few settlers in the area, that Fort Davis was established.

For more than a quarter of a century, the soldiers garrisoned here fought off Indians and enabled the white man's civilization to gain a foothold

Ruins at Old Fort Davis *Bob Wygant*

in this wild, remote frontier country.

In their long and bitter struggle to drive out the Apache raiders, the soldiers of Fort Davis had to use every tactic in the book, and some that weren't. For one brief period they even used camels, imported from North Africa, as pack animals. The sight of those strange beasts among the rocky ridges of the West Texas mountain country must have been unnerving to the Indians, and, for that matter, to any unsuspecting white men who might have run across them.

During the Civil War, with Jeff Davis now President of the Confederacy, Fort Davis was vacated by the Federal troops. Confederate soldiers occupied it for several months, then abandoned it. After the war, when Federal soldiers returned to the post in 1867, they found that all the old buildings had been destroyed by the Indians. The army built a new fort near the old site, and resumed the task of clearing out the Apaches. It is the ruins of these buildings that the visitors see today. The fort was finally abandoned in 1891, when there was no longer any need for it.

Leaving old Fort Davis and driving westward on the scenic loop, past huge

Continued on page 14

Mitre Peak

Bob Wygant

continued from page 11

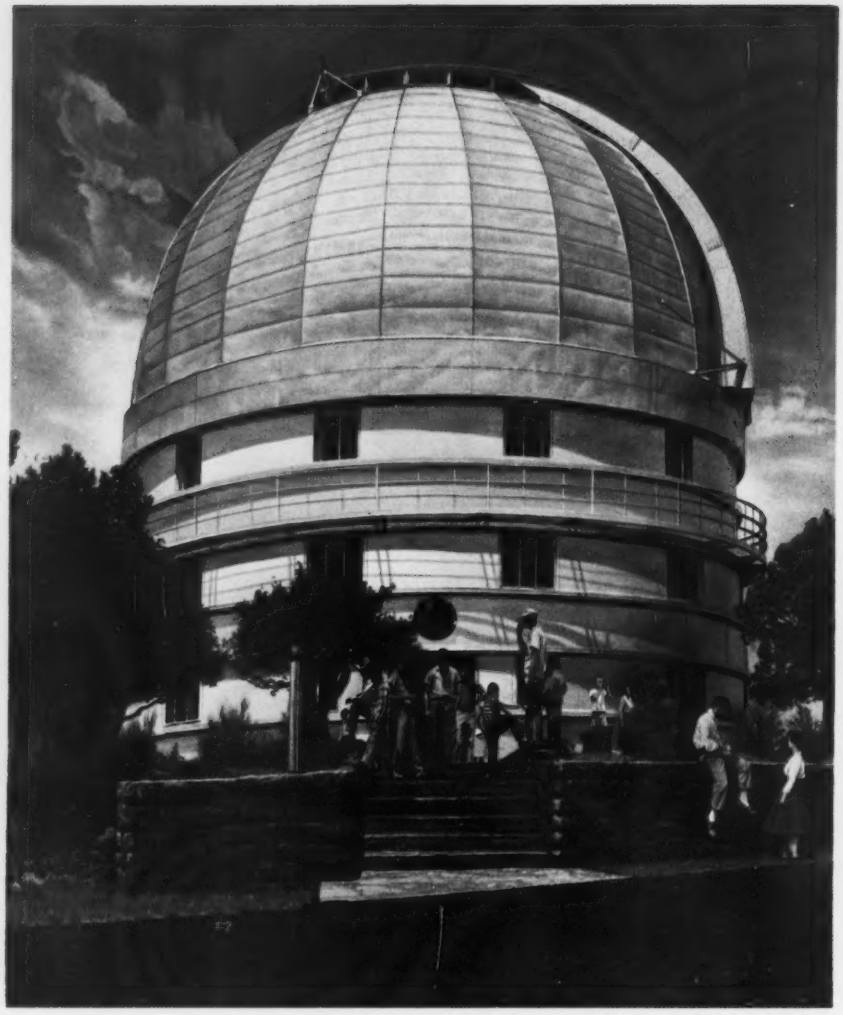
rocks shaded by overhanging cottonwood trees, you arrive shortly at the Davis Mountains State Park, with its rambling white pueblo-type lodge built upon the hillside. As you sit on one of the open terraces of the lodge and enjoy the spectacular view of the surrounding mountains, you are reminded that probably the first white man to visit the Davis Mountains looked upon this same view. He was the Spaniard Antonio de Espejo, who marched with his party through this canyon 375 years ago.

A dozen miles beyond the State Park, the scenic route comes to the foot of magnificent Mount Locke, atop which the rounded dome of the McDonald Observatory gleams white in the clear mountain air. The road winds up and over the mountain, with a spur that leads to the pinnacle. Here, at an elevation of 6,791 feet, you are at the highest point on the Texas highway system, with a breath-taking view in all directions. On a clear day you can see mountain peaks in old Mexico, a hundred miles away.

THE OBSERVATORY, owned by the University of Texas and staffed by Yerkes Observatory of Williams Bay, Wisconsin, is open to the public for a brief period each afternoon. On these tours, visitors are conducted into the great domed room, where a staff member describes the observatory and its work and answers questions. He also puts the big 82-inch telescope—third largest in the world—through its paces. You may not exactly understand astronomy after this visit, but at least you'll find it more interesting.

Leaving Mount Locke, the scenic loop soon dips down into Madera Canyon, where sheer walls of solid rock rise far above the wooded canyon floor. This is a cool and restful spot, and you'll probably want to pause a while at the roadside park beneath the shade trees.

Near the midway point in the scenic loop, the great jagged profile of Sawtooth Mountain juts impressively up to a height of 7,718 feet above sea level. Across the road is an interesting pile of huge boulders, some of them as round as marbles and as big as a garage. This gigantic rock pile, left by some ancient freak of nature, makes an ideal spot for the roadside park that has been built there. Few visitors pass up the chance of pausing here to take pictures, eat a picnic lunch, or just drink in the beauty of the view.



McDonald Observatory, Mount Locke *Bob Wygant*

From midway point, the scenic loop road levels off in a wide sweep around Mount Livermore, tallest of the Davis Mountains at 8,382 feet, and second only in Texas to Guadalupe Peak (8,751 feet). Here the route passes through mile-high ranch country, where fat cattle graze against the green slopes of the undulating range. A few miles farther, you come to a collection of cabins in a pretty grove of trees beside the road. This is historic Skillman's Grove, widely known in these parts as the site of the annual Bloys Camp Meetings. The first of these religious meetings was conducted in 1889 by W. B. Bloys, chaplain at Fort Davis, with a group of six ranchers and their families in attendance. The camp meetings grew into a tradition, and in 1900 the Bloys Camp Meeting Association was incorporated, with members from several church denominations. These camp meetings have played an interesting role in the history of the Davis Mountains country.

From Skillman's Grove, the scenic route leads quickly past the Point of Rocks, around Blue Mountain, and back into the town of Fort Davis. The history of this town is interwoven with that of the adjacent fort from which it grew, and the visitor can find many interesting stories here about the frontier soldiers and the Indians they fought.

All in all, the scenic drive through the Davis Mountains offers a rare combination of natural beauty and historical interest unmatched by any other 74-mile stretch of highway in Texas.

Think . . . for Profit

Suggestion systems such as Humble's Coin-Your-Ideas plan have proved mutually beneficial to industry and employees

WHEN Numa J. Galmiche suggested that Humble try a new accounting method to figure depreciation on Baytown Refinery equipment a few years ago, he knew the annual savings would be considerable. He didn't realize, however, that he had hit upon one of the most valuable ideas ever submitted to the Company's Coin-Your-Ideas plan, or that he was doing his own pocketbook a very good turn.

A Refining accountant with 33 years' service, Mr. Galmiche mulled over and perfected his proposal for almost four years before it was finally accepted. But this persistence paid off. By 1954, his idea—the only one he's attempted to coin—had netted the maximum initial, supplemental, and capital awards.

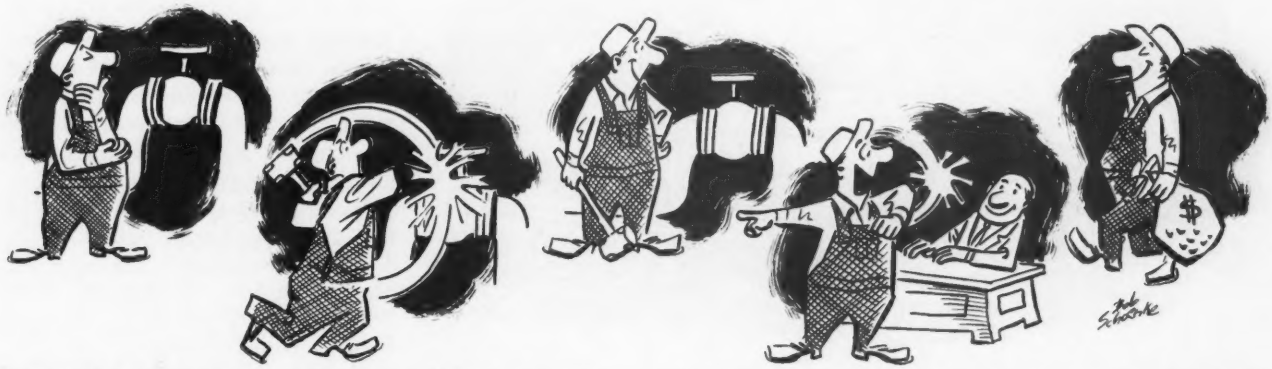
Such cases explain why suggestion systems — Humble's Coin-Your-Ideas plan among them—live by two cardinal rules: (1) Never underestimate the innate ingenuity of free-thinking men and women on the job. (2) Never reject an idea, no matter how impractical it may seem, without a fair hearing.

The time and effort spent on suggestion systems have paid off, both to companies and employees. In the oil industry, for example, employee suggestions are helping improve operations, save millions of dollars of unnecessary expense, promote safe practices and, in many cases, increase production.

Employees get handsome cash awards which, in some cases, have helped them to get married, afford babies, buy homes, or send their children to college. Also, there's personal recognition, possible aid to advancement, and a creative outlet—all highly important in an age when it sometimes may seem that machines get more credit than individuals.

Possibly no single institution, with the exception of the mother-in-law, has been the target of so many jokesmith's jibes as the suggestion box. But in 1956, about 6,000 companies and agencies took them seriously enough to pay out $50 million for award-winning suggestions.

Even the federal government mines gold from suggestion boxes; once it



Cartoonist's depiction of the employee suggestion plan in action is amusingly oversimplified, but it does capture the basic principle: the man on the job finds a way to improve an operation, he submits the suggestion to management and receives a cash award.

MAXIMUM AWARD WINNERS

Ten ideas—nine from Baytown Refinery, one from the Houston office—have pocketed maximum Coin-Your-Ideas prize money, now $1,900. These maximum winners by year, are:

1939–M. L. Doss
1945–P. J. McMurrough
1946–Johnnie J. Cheatham
1949–J. E. Beall and E. P. Gill
1950–Carl G. Freeland and Roy A. Brown
1951–James L. Williams
1952–Sherwood A. Adcock and Marlin Lee
1954–Numa J. Galmiche
1957–Fred Cansler
1958–Odis O. Fulmer and Julius D. Porter

awarded $275 to a selfless civilian employee who confessed his $12,000-a-year job was a waste of time and should be abolished. It was.

Unlike some suggestion systems, Humble's Coin-Your-Ideas plan solicits constructive ideas, not gripes, and hasn't used boxes for several years. The plan is based on the principle that an employee who spends 40 hours a week on his job is likely to develop some good ideas about how to do the job better. He may have useful suggestions on how to save time and materials, prevent waste, or promote safety. Through the C-Y-I plan he can make these ideas known to management. If a suggestion proves acceptable, it is put into use, and the employee is rewarded for his idea.

The history of Humble's C-Y-I program reveals something of the success of this open-office-door policy. Since Jack McNamee, a pumper in the McCamey production district, turned in the first idea back in 1931, the Company has reviewed almost 25,000 suggestions submitted by employees. Of these, 9,407 were put into practice and merited cash awards amounting to almost half a million dollars.

The employee sets the Coin-Your-Idea machinery into motion by writing up his idea on a provided suggestion blank. (All active employees—except top supervisors and management, and special employees whose inventions are under contract—are eligible.) In most cases, the idea already has the blessing of the supervisor, and is in use. If the employee needs photographs or drawings to illustrate his idea, he can get help at this point.

Ideas are considered with judicious care and given the benefit of any doubt. The first appraisal rests with the local committee, made up of supervisors and other personnel well qualified to decide whether the idea has merit. With or without support of the local committee, the idea progresses to a departmental committe, where it is again reviewed before making the agenda of the Central Coin-Your-Ideas Committee.

The Central Committee, composed of representatives from the major operating departments, Houston office, and Humble Pipe Line Company, meets quarterly. Under present rules, it has power to grant a single idea an initial award of as much as $200, a supplemental award of $1,200, and a capital award of $500—a total of $1,900.

"Some companies pay higher rewards as soon as the idea is accepted," says Central Committee Chairman A. Ross Rommel, "but we think it's wise to let the idea weather a year, then reappraise it. If it's more valuable than we thought, we grant a supplemental award. If it proves to be the exceptional idea after two years, we can add a capital award."

Once donning their thinking caps, many employees find they have a hatful of ideas. Consider Lubie H. Hanson, Sr., Baytown Refinery, who submitted 122 ideas, had 24 accepted and is top money earner with $2,450. Five dollars behind is Marlin Lee, who before retiring in 1956, contributed 105 ideas, cashed in on 26 of them. Neither was so prolific as A. V. Faulkenberry, also of the Refinery, who is champion contributor with 144 ideas, 19 of them award-winners.

Laurels for the most ideas accepted go to Joe C. Brewer, who rode out three rejections and went on to hit 30 straight. Most of Brewer's 17-year career with Humble has been in the Refinery electrical department, and most of his ideas deal with air conditioning controls. He has yet to see a piece of equipment that can't be improved.

Being dogged sometimes pays dividends. A. D. Anthony, Production, suffered six rejections before he broke the ice with a $100 award. Another never-say-die idea man is Melvin Gabler, Humble Pipe Line Company, who had nine of 44 ideas approved for a total of $590.

Workaday problems, such as how to examine the inside of a tank car, are frequently solved by employees seeking better ways to do their jobs; ideas benefit employees and employer.

SOME contributors are consistent winners, and several, in fact, are batting 1.000. L. W. McClure, Production, has hit 15 for 15; Wilfred Nobles, Sales Accounting, 12 for 12; Harvey T. Mitchell, Production, 11 for 11; and Ray E. Whigham, Sales Accounting, 10 for 10. Big money winner of the 100-percenters is W. Frazier Riddle, also of Sales Accounting, whose nine idea hits have won a tidy $2,170.

Women also get their share of the C-Y-I jackpot. Lucille Griffith, of the Employee Relations Department, blazed a trail by collecting one of the first five awards the Company issued back in January, 1932.

Far and away the outstanding distaff contributor, however, is Louise Hay-

den, Sales Department, who coined two ideas for $1,785. One of them was bright enough to carry off $1,705, including a maximum capital award.

Couldn't Humble, Miss Hayden wanted to know, sign *continuing,* instead of yearly, contracts with its 3,200 industrial oil users? Humble could and now does. The suggestion all but eliminated her job of typing the contracts, but Miss Hayden retired in March of last year, anyway.

SOMETIMES two heads, or even three or more, are better than one. Four of the ten ideas which won all three maximum awards were submitted jointly. And a quartet of production employees successfully collaborated on three ideas.

Ideas needn't be completely original, novel or patentable. Many *are* so technical that only a Ph.D could understand, much less dream them up. More, however, are so simple that fellow employees are prompted to sigh "Why didn't *I* think of that?"

A classic case involves disappearing quantities of caustic soda, used at Baytown Refinery for acid treating. Humble bought the heavy liquid by weight, delivered in railroad tank cars. The cost was determined by subtracting the weight of the empty car (stencilled on its side) from the weight of the filled car. Somehow, though, Humble was being shortchanged—as much as a whole ton in a single carload. Then W. W. Parrish, a clerk, guessed the reason. Residue of the caustic soda was caking up inside the tank car. His solution brought him $200 in award money.

Some situations seem fairly to beckon as fertile fields for improvement. Production proration form P-1164 has been the subject of 12 ideas that paid $520. Field gang trucks have accounted for 56 awards and an aggregate of $1,580. In offshore operations, Humble employees have submitted 31 acceptable ideas that earned $2,415. With a top initial award for an underwater pipelaying plow he invented, welder B. B. Box treated fellow employees in the Bayou Sale production district to a barbecue.

Proving that no system or process is immune, several ideas have polished Coin-Your-Ideas procedure itself. One secretary collected a respectable $140 for two ideas that revised C-Y-I forms in the Production Department.

Humble gets its share of impractical suggestions, of course, but even they are given consideration. "If a man takes the trouble to write an idea down and sign his name," says W. C. Morris, secretary of C-Y-I, "chances are it isn't impractical to him."

One Refinery man has received 23 polite C-Y-I rejection letters in a row, no awards. On the whole, though, Humble employees present a higher percentage of useable ideas than the national average. The average company, says the National Association of Suggestion Systems, accepts one idea in four, or 25 per cent. Humble puts the stamp of approval on four in ten, or 40 per cent.

Idea quality is high, but only about 8 per cent of Humble employees can be called active contributors. For obvious reasons, the C-Y-I staff, solidly backed by Company management, wants to broaden the base of participation. The more ideas submitted, the better. This is especially true in a stormy economic climate when curbing costs has become so vital.

The key link in the Coin-Your-Ideas chain is the first-line supervisor. Fortunately, most supervisors realize it's a feather in their cap when the men under their leadership show interest in doing the job better, faster, and safer.

Since its first year of operation, when 41 ideas paid $515, Humble's C-Y-I program has been made increasingly attractive to employees. In 1957, 614 ideas harvested $33,415.

Some Unusual Suggestions That Have Won C-Y-I Awards

- Place safety slogans on drinking cups
- Drill a hole in a table to discard bottle caps through
- Speed drying time of inked drawings with a hair dryer
- Use a periscope to inspect the insides of tank cars
- Purchase shovels with straight handles, which are easier to replace
- Convert used hypodermic needles to meter chart pens
- Dip push brooms in hot water daily to increase their life

A speedy new payment schedule adopted by the Central Committee is stimulating still keener employee interest and participation. Awards of $50 or less, once handled on a quarterly basis, are now paid twice a month. The time needed to process an idea in certain far-flung operations has been shaved considerably, in some cases by as much as eight months.

In a broad sense, the men and women who contribute to Humble's Coin-Your-Ideas plan echo a staunch belief that there is no *status quo* in the oil business. By constantly searching for improved methods, they stand in unspoken agreement with Thomas Edison, the American oracle of ingenuity, who said: "There's a way to do it better. Find it!"

Like the sign says, all you have to do is "THINK."

Field gang trucks have been fertile field for employee suggestions; Humble's Coin-Your-Ideas committee has granted $1,580 in 56 awards for ideas pertaining to these vehicles.

Humble's

These eight men are named on all of the five annual safety plaques won consecutively by the crews of Company Rig 39. From front to rear, they are L. P. Berry, R. F. Elliott, H. P. Peltier, T. L. Ramey, P. J. L. Bourgeois, W. H. Bassett, A. O. Davis, Gaston Patterson.

THE SAFEST TEAM

These are the members of the crews of Rig 39 whose names appear on the plaque for the best Company drilling rig safety record during 1957:

Tool Pusher: R. J. THAMES.

Mechanical Supervisor: G. PATTERSON.

Drillers: T. L. RAMEY, W. H. BASSETT, L. THOMPSON, W. O. MILLER.

Crew Members: P. J. L. BOURGEOIS, L. P. BERRY, W. B. GOFORTH, R. F. ELLIOTT, M. D. HUNT, T. H. GILLASPIE, A. O. DAVIS, F. P. WILLIAMS, C. M. HOLLOWAY, JR., O. VAUGHAN, B. C. WHITE, JR., T. R. FOXWORTH, T. L. FOSTER, H. E. MARSHALL, O. G. BOURG, S. BISSETT, W. T. WEST, H. P. PELTIER, A. L. MAY, M. HODGES, G. A. COOPER, D. M. ANDERSON.

ON November 3, 1949, an accident occurred on Humble Rig 39, working at Tiger Pass, Louisiana. It was not as serious as it might have been (a man's leg was cut and bruised when he was struck by a hoisted beam), but to the members of the crew it was a significant accident. It was one that should not have happened, and everybody in the crew knew it. They promised themselves that such accidents would not happen again on Rig 39.

This spring, more than eight and a quarter years later, the crews of Rig 39 are still living up to that promise. When the 1957 safety records were closed out at the end of February, the men of Rig 39 could lay claim to a new all-time safety record for a Humble rig. They had racked up a total of 472,449 man-hours of work without a lost-time accident.

And they accomplished that record under a wide variety of locations and working conditions. They have operated their heavy duty rig in 13 different fields, completing a total of 38 wells at an average depth of 12,391 feet. Some of these wells were drilled on land, some from a platform offshore in the Gulf of Mexico, and some from a barge in the marshlands of Louisiana.

In the course of piling up that impressive record, the crews of Rig 39 have won five consecutive annual awards as the Company's safest drilling team. That, in itself, is no small accomplishment, for the men in Humble's drilling operations are consistent winners of state and national awards for their overall safety records.

What makes a safe drilling team? How can a group of men work around heavy machinery in daylight and dark, in sunshine and rain, for more than eight years without a disabling accident of any kind?

Part of the answer, of course, lies in training. All members of the drilling crew take part in the Company's carefully-planned safety training program. They learn to recognize and avoid hazards and conditions that might lead to accidents. They learn the wisdom of using the safety hats, steel-capped shoes, and other safety equipment available to them. And they learn how to work together safely as a team.

Every month the crew members meet with Company safety engineers to discuss the ever-present problems of accident prevention. They study the situations that have caused accidents or near accidents on other drilling rigs, and learn to profit by others' mistakes as well as their own.

But safety consciousness cannot be maintained on a monthly meeting basis. Each drilling crew, just before going on tour, holds an informal on-the-job safety meeting, conducted by the driller who heads the crew. Here any unusual circumstances or conditions that might lead to accidents are brought up and discussed, so that all members will be aware of them. The men go to work with safety on their minds, and they continue in that attitude throughout the day.

All of those procedures are common to all Humble drilling crews. And that

's Safest Rig

Eastern Division's Rig 39 sets a new Company drilling record of 472,449 man-hours without disabling accident

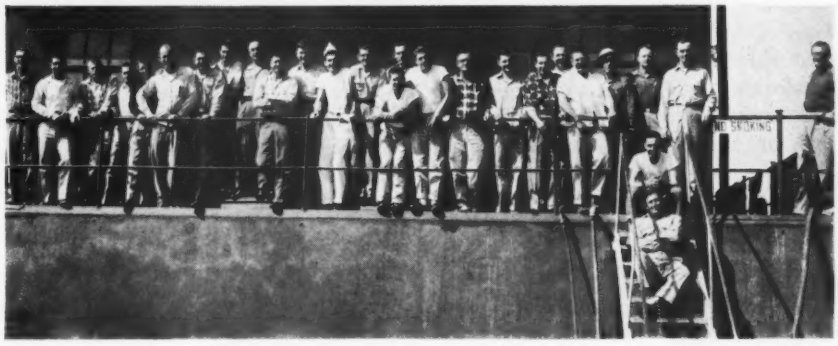
Toolpusher R. J. Thames, left, and Port Sulphur District Superintendent Horatio Durst display Rig 39's new safety plaques.

Brief safety meeting is held by Driller T. L. Ramey, right, and crew going on tour. From left are: L. P. Berry, P. J. L. Bourgeois, H. P. Peltier, R. F. Elliott, and R. F. Campbell.

helps explain the fact that there were 21 Company drilling rigs with no lost-time accidents during 1957. Among them were three rigs whose crews have worked more than 250,000 hours without a disabling injury. They are Rig 34, Goose Creek District, 390,639 hours; Rig 45, Paradis District, 360,-625 hours; and Rig 31, Goose Creek District, 261,766 hours.

In order to stay ahead of competition such as that, and maintain their title of Humble's safest drilling team, the crew members of Rig 39 know they can never relax for an instant their vigilance against the accident that is just waiting for an opportunity to happen.

"All the safety training in the world won't prevent accidents," says Ralph J. Schilthuis, vice president in charge of production, "unless the men themselves remember to use their safety knowledge. The crew members of Rig 39 are giving an outstanding demonstration of the fact that with proper training and mental alertness, accidents can be prevented."



Group picture shows most members of Rig 39 crews lined up along rail of their drilling barge. At time of the 1957 safety awards, the rig was working in the Port Sulphur District.

Monthly safety meeting is held on the quarterboat with Company safety engineers. Here the crew members discuss the causes of accidents; learn how to recognize and avoid hazards.

President Expresses Appreciation for Bargaining Agency Support

EMPLOYEE Federations of the Production Department, authorized bargaining agencies of employees engaged in drilling and producing operations, have called attention to the following statement in *A Look At The Humble Company Of Today And Tomorrow,* an address made before a group of Baytown Refinery supervisors by Mr. Morgan J. Davis and published in the January-February issue of THE HUMBLE WAY:

"It is also very much to be regretted, I think, that our own bargaining agencies sometimes oppose Humble and our industry on some of these vital political issues such as percentage depletion. Since the bargaining agencies' own welfare is directly involved, one wonders why they take this stand. The probable reason is poor communications . . ."

In order that their position in such matters may be clearly understood, the Production Department Employees Federations have stated to Humble's management that as representatives of employees who for the most part are Humble shareholders, they have supported percentage depletion and all other measures designed to help maintain an economic atmosphere in which the petroleum industry can continue to grow and serve the public interest. Furthermore, they have requested that their position be made known to readers of THE HUMBLE WAY.

When advised of the statements of the Federations at the Central Council meeting on Friday, April 25, 1958, Mr. Davis made the following statement:

"While, certainly, I had realized that the Federations representing Humble employees had been generally cooperative with the Company throughout the long history of our relationship and while, of course my statement in THE HUMBLE WAY was not intended to reflect upon this fine attitude, I had not been aware that there had been any positive action on the part of any of the Federations of Humble employees in the past by which they publicly and specifically supported the Company and industry in their fight to retain the depletion allowance and to secure much-needed legislation affecting the industry. I was therefore greatly pleased to receive communications from two of the Federations of Production Department employees which clearly showed their awareness of the importance of the depletion allowance and other public and legislative matters affecting the oil industry. I also welcomed the statement from the Central Council which set out their position on depletion and other similar issues, and was glad to note that at least one Federation had passed a resolution to write their Congressional representatives and otherwise to take an aggressive attitude on issues which might be helpful to the petroleum industry and the Company.

"Unfortunately, the record shows that there have been occasions in which some unions representing petroleum industry employees have taken positions on legislation and tax matters which seemed to be contrary to the best interests of the industry and those employed by it. This, of course, has been discouraging and is the general point that I was attempting to make in my talk. As I also suggested in my original talk, probably the managements of both Humble and industry have not communicated with employees as fully as would have been desirable regarding the depletion allowance and other legislative and tax matters. I am pleased at the interest which has been manifested in my talk and the response from our employees which has resulted. This experience indicates that when the need for support is made apparent, Humble employees are ready to give their active assistance. I believe this fine attitude will be found in every department and in all phases of the Company's operations."

Allen Moves to Jersey Research Position

Allen

Thomas O. Allen, a senior supervising petroleum engineer with Humble Oil & Refining Company, will leave the Company June 16 to become manager of the newly formed Drilling and Development Division of Jersey Production Research Company in Tulsa, Oklahoma.

In his new position he will supervise an extensive program of research and development in the fields of drilling, logging, and well completion.

Mr. Allen came to work for Humble in 1936 after graduating from Texas A & M College with a degree in electrical engineering.

From 1936 to 1941 he worked in various field and petroleum engineering assignments with Humble and during World War II served four years in the Army Signal Corps.

He has been granted eight patents on well completion operations and equipment and has several other patents pending. Mr. Allen has also authored many papers on gun perforating and other well completion practices.

Sales Employees Set Safety Mark

Southeast Division sales employees recently set a new safety mark, working four million man-hours without a disabling injury.

The approximately 275 employees involved set the record April 9 after nearly eight years without a disabling injury.

Lab Workers Set Safety Record

On April 14, employees in Humble's Baytown laboratories added another year to their growing record of safety achievement. At that time the 550 employees accumulated 11,500,000 manhours without a disabling injury.

One division, the Inspection Laboratory, completed 32 years without a disabling injury. Employees in the Service laboratories and Research and Development division completed 11 safe years.

The varied work carried out by different groups in the laboratories makes the record all the more impressive. Researchers are in contact every day with potentially hazardous chemicals, processes operating at high temperatures and pressures, and the continuous threat of the unknown as new products and processes are explored. Most researchers handle flammable liquids and gases in their daily work.

Humble Employees Receive Top Safety Awards

Humble employees received six top industrial safety awards recently at the annual Texas Safety Conference in Dallas.

The awards, presented by the Texas Safety Association, were made to Humble employees in Texas for outstanding safety achievements in the fields of petroleum production, gas operations, sales, exploration, pipeline, and drilling. Baytown Refinery employees placed second in the refining division.

Awards were based on accident frequency rate during 1957, and only Texas industrial firms entered. Humble competed in the group composed of major firms, those with 500 or more employees or whose employees worked a total of 800,000 or more man-hours during the year.

Five of the six top industrial safety awards won recently by Humble employees are held, left to right, by A. Ross Rommel, chief safety engineer; W. R. Feather, assistant chief, Seismic Section, Exploration Dept.; A. E. Pecore, Humble Pipe Line Company president; Ralph J Schilthuis, Humble vice president and director; and A. O. Saenger, operations manager, Sales Department. E. C. McFadden, center, past president of the Texas Safety Association, made the awards to members of management who accepted for the Humble employees.

The Company's overall frequency rate was 2.03 disabling injuries per million man-hours worked. Frequency rates in the various categories were: petroleum production, 2.14; gas operations, 1.30; sales, 2.22; exploration, 1.75; pipe line, .80; drilling, 11.41; refining, 1.71.

Organizational Changes at Baytown

Several organizational changes at Baytown Refinery became effective May 1. The major changes and reassignments of duties are as follows:

James Harrop, who has been General Superintendent of the Baytown Plants, became an Assistant Manager of the Refinery. In his new position, he is responsible for the Coordination and Blending, Technical, Employee Relations, Medical, Accounting, and Plant Protection Divisions.

H. H. Meier, formerly Manager of the Technical and Research Division, also was named an Assistant Manager. He now is responsible for the Operating, Utilities and Oil Movements, and Maintenance and Construction Divisions.

H. F. Goss, who has been Operations Superintendent in charge of the Operating, Utilities and Oil Movements Division, was named Operations Advisor.

As a part of the consolidation of divisions, the Blending group, formerly under the Oil Movements Division, is now a part of the Coordination Division, and the Utilities Department is consolidated with the Oil Movements Division to form a new Services Division.

The Technical Service Division, Engineering Division, Service Laboratories and Humble Inspection Laboratory have been consolidated into one Technical Group headed by Dr. W. B. Franklin.

H. F. Hartman, formerly head of the Engineering Division, has become Maintenance and Construction Superintendent, replacing C. F. Kelly, who has announced his retirement, effective August 1, 1958.

In addition to the above, several other changes of assignment within the divisions were announced.

New Bulk Stations in Pecos, Fort Stockton

Another stride in Humble's sales expansion west of the Pecos River was taken recently as new bulk stations were opened in Pecos and Fort Stockton, Texas.

Businessmen's luncheons were held in the two towns with Sales Manager F. A. Watts and Western Division Sales Manager R. T. Holmes addressing the groups.

Humble representatives from Houston, Abilene, and Midland joined local Manager R. H. Ammons at Pecos and Commission Bulk Agent T. R. Wilson in Fort Stockton in hosting local businessmen.

Butadiene Operations Curtailed

The Butadiene Unit at Baytown Refinery has been shut down for an indefinite period because of continuing low demand for butadiene as an ingredient in synthetic rubber and other chemical products.

A portion of the equipment is being used temporarily to produce small quantities of other chemical raw materials which may have good potential sales outlets in the future. This phase will be discontinued in the near future, at which time most of the remaining equipment will be shut down.

Butadiene demand is expected to increase the latter part of this year so that production may be resumed late in 1958.

New Production Office at Baytown

A new Humble district production office will be built soon at Baytown to serve the Company's Goose Creek Production District and Tomball Gas District. The Goose Creek District now includes operations formerly under the Anahuac District office. The two districts were consolidated May 1.

Wink District Office to be Moved to Monahans

Plans have been announced to abandon Humble's 30-year-old Wink District Camp and to establish a new district headquarters office at Monahans, Texas.

The decision to move the district headquarters to Monahans was made in keeping with the present trend toward establishing district offices in larger cities that have experienced steady growth through the years.

Another new district office in West Texas already has been completed and occupied. The Means District Office was transferred on April 1 to its new location in Andrews, and the district was redesignated as the Andrews District.

Ferguson Serves as Panel Chairman

H. W. Ferguson, Humble vice president and director, served as a panel chairman recently at the first Dallas meeting of the National Industrial Conference Board. The group which he headed discussed the control of research and development activities.

The National Industrial Conference Board, founded in 1916, is an independent and non-profit institution for business and industrial fact-finding through scientific research.

SCHILTHUIS HONORED: Ralph J. Schilthuis, right, Humble vice president and director, receives a Colorado School of Mines Distinguished Achievement Medal from Dr. John W. Vanderwilt, president of the school, during commencement ceremonies May 23. Mr. Schilthuis, who is an alumnus of the school, also delivered the keynote address at the recent 24th Annual Engineers' Day program.

Recent Retirements

HUMBLE PIPE LINE COMPANY

Name	Location	Date of Retirement	Years of Service
Alfred F. Anderson	Cisco District	May 19	30
Willie H. Baker	Conroe	May 1	38
Dudley U. Barnes	Navasota Station	March 31	30
Charles W. Fowler	Pampa District	March 26	38
Edwin B. Hamilton	Pendell Station	April 18	23
Perry M. Hicks, Jr.	Cisco	April 1	29
George W. Hudson	Cisco Connection	June 1	34
John F. Jones	Comyn Station	May 14	30
Roland J. Lockard	Navasota Station	May 20	34
Arthur G. Locke	Conroe District	May 26	31
Michael L. McGannon	Longview	May 17	38
Claude B. Pennington	Corpus Christi	May 9	36
Cicero F. Randal	New Quintana Sta.	May 1	33
John A. Reed	Baytown	May 1	31
Lonzie S. Sledge	Tomball Connection	May 19	37
Charles Thibodeaux	Baytown	March 24	38
Ray Winland	Mexia District	May 1	43
Thomas E. Yarbrough	Odessa	May 1	32
Raud M. Young	Longview Station	April 17	35

PRODUCTION DEPARTMENT

Earl C. Allder	Goose Creek	May 1	31
Henry Alston	Willamar	May 5	29
Virgil A. Ayers	Kelsey	May 5	32
James A. Bell	Athens	May 1	29
John A. Bohn	Wink	May 1	35
Harold C. Bright	Greta	May 1	31
Adricoy J. Bruce	Anahuac	May 29	32
Monroe D. Canon	Tomball	April 28	37
Lubie Carter	Conroe	May 1	35
William H. Cook	Tomball	May 4	30
Willie T. Davis, Sr.	Imogene	May 1	33
C. B. Dubose	Imogene	May 1	36
Ernest G. Geisendorff	Raccoon Bend	May 1	21
James D. Gill	Kelsey	May 5	31
William C. Gullett, Sr.	Greta	April 6	29
Richard P. Hairston	Port Sulphur	May 19	32
Clarence W. Hampton	Conroe	May 1	34
Page Havard	Tomball	May 20	39
Rufus A. Henderson	Talco	May 1	33
Sampson T. Howell	Conroe	May 1	35
James J. Hulsey	Tomball	April 22	33
Oswald D. Jones	Greta	May 1	31
Abel Lusk	Tomball	April 7	34
William A. Marsden	East Texas Gas Plants	April 1	32
Joe W. McDowell	Anahuac	April 25	28
Will H. Merideth	Eastern Division	April 27	24
Johnnie R. Morse	Liberty	May 5	36
Alex M. Orr	Imogene	May 5	37
William B. Phillips	Gladewater	May 1	29
Howard C. Price	Imogene	May 1	29
O. L. Rollins	Paradis	April 1	37
James P. Ruckman	Western Division Office	May 7	32
Milton E. Rush	Liberty	May 28	30
Harold S. Shaffer	Government Wells	May 16	29
William L. Simpson	London	May 3	36
James A. Smith	Tomball	April 23	36
Meldron V. Stanley	Beaumont	April 27	25
Willie W. Thames	Anahuac	May 1	37
Bernice Walker	Flour Bluff	April 1	34
Samuel S. Wallace	Anahuac	May 5	32
Ed. Warren	Tomball	May 1	28
Arthur Whitener	Flour Bluff	May 1	30
Calvin C. Wilkins, Sr.	Kelsey	May 5	29
Archie C. Williams	Tomball	May 5	37
A. Orbon Yarbrough	Athens	May 1	25
Lubie D. Young	Conroe	May 1	32

BAYTOWN REFINERY

Arcadio Araujo	Labor Dept.	May 1	33
Clifford J. Arnold	Boilermaker Dept.	May 1	33
Oscar R. Ashley	Utilities Dept.	May 1	36
Marion W. Barden	Butyl Unit	April 1	31
Earl Berry	Pipe Dept.	May 1	30
Elton F. Bird	Pipe Dept.	May 1	43
Julius N. Boley	Service Laboratory	May 1	28
Hollis Brown	Blacksmith Dept.	May 1	32
Walter Brown	Railroad Dept.	May 1	35
Carl E. Carlson	Butyl & Butadiene Units	May 1	34
Archie F. Carroll	Pipe Dept.	May 1	37
Jose Casas	Pipe Dept.	April 1	33
Herman Collins	Treating Dept.	May 1	32
Dewitt C. Compton	Distillation Dept.	May 1	29
Joe A. Cope	Oil Straining & Blending Dept.	May 1	37
Lester E. Cope	Distillation Dept.	May 1	35
Cecil E. Cornelius	Utilities Dept.	May 1	29
Esaw Crawford	Tube Cleaner Dept.	April 1	32
George H. Crawford	Accounting-General	May 20	37
John H. Creekmore	Fluid Catalyst Cracking Unit #1	May 30	32
Andrew D. Creel	Treating Dept.	May 1	30
James P. Dodson	Instrument Dept.	May 8	22
Clemente Estrada	Brickmason Dept.	May 1	30
Frank A. Ferguson	Mechanical General	May 1	35
Alpha L. Fisher	Carpenter Dept.	May 1	28
Lloyd C. Garrett	Treating Dept.	May 1	32
Prentice C. Goodman	Pipe Dept.	April 14	30
Elmer A. Goss	Machine Dept.	May 1	33
Charles R. Griffitts	Docks	April 1	34
Lester S. Grimes	Boilermaker Dept.	May 1	15
Harry G. Hance	Butadiene Plant #2	April 10	30
Claude E. Hardy	Treating Dept.	May 1	31
Clyde M. Harper	Straining & Blending Dept.	April 1	36
Domnick J. Heckler	Welding Dept.	May 1	37
Calvin W. Hill	Storehouse	May 1	29
Atanasio Hinojosa	Brickmason Dept.	May 1	30
Joseph Holmes	Plant Protection	April 16	36
Randolph E. Hylton	Garage Dept.	April 1	34
Homa A. Kelso	Light Oil Treaters	April 1	31
Carl R. King	Treating Dept.	May 1	38
Roy L. Kerr	Treating Dept.	May 16	28
Fantley T. Kinnaird	Paint Dept.	April 1	30
Edward L. Kloesel	Paint Dept.	May 1	28
Eddie Krenick	Welding Dept.	May 1	35
Matt J. Laramore	Carpenter Dept.	April 1	33
Bollie Lawrence, Jr.	Labor Dept.	May 1	37
John D. Lewis	Pumping & Gauging Dept.	April 1	31
Felix R. Lloyd	Paint Dept.	April 14	33
Floyd H. McClurg	Service Laboratories	May 1	28
William F. Mercer	Distillation Dept.	May 1	33
Charles J. Michalsky	Paint Dept.	April 1	30
Otto A. Miller	Oil Straining & Blending Dept.	May 1	37
Nat Pace	Engineering	April 9	38
William H. Reber, Sr.	Mechanical Div.	May 1	34
Merced Renteria	Labor Dept.	May 1	32
David G. Riley	Mechanical General	May 22	29
Ralph E. Robinson	Paint Dept.	May 1	36
Albert J. Rombs	Mechanical General Div.	April 1	38
Louie B. Russell	Garage Dept.	May 1	23
Ascension Salinas	Brickmason Dept.	May 1	32
Frank B. Savage, Sr.	Labor Dept.	April 22	28
Johnnie H. Savage, Sr.	Labor Dept.	May 1	30
Gerald C. Sherman	Pipe Dept.	May 1	26
John Soffes	Pipe Dept.	April 28	32
Harlan G. Standifer	Treating Dept.	May 1	28
Raymond S. Standifer	Light Oil Treaters	May 1	31
Walter V. H. Stephan	Labor Dept.	April 1	37
James J. Stroman	Blacksmiths	May 14	32
Charles Svoboda	Fire Equipment	May 1	28
Andrew D. Tomlinson	Service Accounting Dept.	May 1	29
Travis C. Tullos	Distillation Dept.	May 1	33
Wesley B. Wagnon	Garage Dept.	May 1	29
Ray C. Weaver	Garage Dept.	April 1	30
Alfred L. Young	Pipe Dept.	May 1	35

HOUSTON OFFICE

Frank L. Carpenter	Production Operating	April 29	42
Edwin M. Chapman	Pipe Line Engineering	May 1	35
Arthur D. Ellington	Prod. & Expl. Acctg.	May 2	32
Earl King	Pipe Line Oil Movements	May 1	31
Steve Kujawa	Office Buildings	May 2	31
Charles M. McKinley	Pipe Line Accounting	May 24	26
Dixie H. Moore	Sales Accounting	May 17	26
Peter E. O'Connor	Pipe Line Operating	April 15	33
Jimmie A. Olenbush	Houston Garage	April 27	23
William A. Perry	Sales Accounting	May 29	36

Deaths

Employees: George H. Bradford, 60, general foreman at Baytown Refinery, on March 24; Parker O. Denham, 57, shop foreman in Geophysics-Exploration at the Houston Research Center, on April 1; Major P. Farnsworth, 55, carpenter Humble Pipe Line Company, Cisco District, on April 25.

Fred R. Gerber, 40, electrician first at Stratton, on April 23; Jerry B. Greer, 25, junior petroleum engineer in the Southwest Texas Division Office, on April 19; Robert H. Hughes, 55, station operator at Kemper Station, on March 12; Clifford H. Kiser, 52, accountant in Production and Exploration Accounting, on April 29; John W. Leamons, 54, mechanic second at Mexia District, on March 7.

Columbus H. Miner, 50, rigger first at Baytown Refinery, on April 7; Samuel B. Pryor, 52, operator at Baytown Refinery, on March 30; Chester W. Robinson, 61, district clerk at Ingleside Station, on April 3; Jodie L. Skaggs, 64, rotary driller at Gladewater, on April 26; James C. Walker, 48, chief operator at Baytown Refinery, on April 1; Virgil M. Williams, 48, lease pumper-gauger at Tomball, on May 2.

Annuitants: Robert T. Barbour, 70, former chief shipping clerk at Baytown Refinery, on April 2; Joe M. Dickie, 63, former farm boss at North Crowley, Louisiana, on April 11; William F. Fleenor, 63, former engineer at Gilmer Station, on April 28; Victor H. Gorsen, 81, former pipeliner at Webster Station, on April 23.

Guy O. Green, 78, former line rider at Lytle Station, on April 19; Dewey S. Hines, 59, former pipeliner, at Tomball Connection, on March 27; Charles F. Hise, 66, former district gauger at Cisco, on March 27; William A. Perdue, 70, former lease pumper-gauger at Talco, on March 8; James B. Wilson, 66, former operating chief engineer at Alanreed Pipe Line Station, on May 3.

By the way

● Not far from the old Fort Davis building shown in Bob Wygant's painting on page 11, the State of Texas has erected a historical marker honoring an Apache maiden known simply as "Indian Emily."

As the story goes, this Indian girl was wounded and captured in an Apache raid against Fort Davis. She was nursed back to health by the mother of a young and handsome army officer, and seemed content to remain in the household as a servant. Then the officer's engagement to a charming young lady was announced, and Indian Emily quietly disappeared from the fort.

One dark night, sometime later, a sentry challenged a shadowy figure apparently trying to steal into the

fort. When his challenge went unanswered, he fired. Indian Emily fell mortally wounded. But she lived long enough to gasp out a warning that the Apaches were planning a surprise raid on the fort. She was trying to get the word to her young officer. The raid was repulsed, the officer was unharmed, and Indian Emily died a tragic heroine.

● For the sake of authenticity, Humble Way writers always try to learn as much as possible about their subjects before they start putting words on paper. Sometimes that means poring over volumes of written materials, interviewing various technical experts, and perhaps going out into the field to observe operations at first hand.

Staff writer Will White, who prepared the Coin-Your-Ideas article on pages 15-17, had a subject that couldn't be observed. He did, however, manage to get the "feel" of his story by actual experience. In collaboration with Joe Tucker, also a staff writer, White worked up and submitted a Coin-Your-Ideas suggestion. We can't tell what the idea is, because this issue went to press before the committee had time to judge it. Anyway, when Will White described how an employee goes about submitting a C-Y-I suggestion, he was writing from first-hand experience. Now he is hoping that he can get some first-hand experience about the winning of an award.

● In the story on page 15, Numa J. Galmiche is mentioned as a veteran refinery accountant who won awards totaling $1,900 for a Coin-Your-Ideas suggestion.

To Texas sports fans who can remember back into the 1920's, however, Galmiche's name recalls a far different kind of achievement. Before he joined Humble, he was a well-known professional boxer, holder of the Texas Featherweight Championship title for several years. Many of the 30-year employees at the Baytown Refinery can recall taking boxing instruction from the Champ during his early years with the Company.

● As you may have noted, there are several items in this issue about new safety accomplishments of various employee groups. These items lend emphasis to the fact that Humble employees are considerably safer on the job than they are off the job. The Safety Division has compiled comparative figures for 1957 which show that while only 78 Humble employees suffered lost-time injuries at work, some 968 lost time as the result of off-the-job injuries. In other words, for every employee injured on the job, 12 are injured off the job.

The leading causes of injuries were motor vehicle accidents, which accounted for 95 of the lost-time injuries. Falls, which ran a close second, were responsible for 88 cases. Exposure (including heat and sunburn), sharp objects, and machinery also caused large numbers of lost-time injuries.

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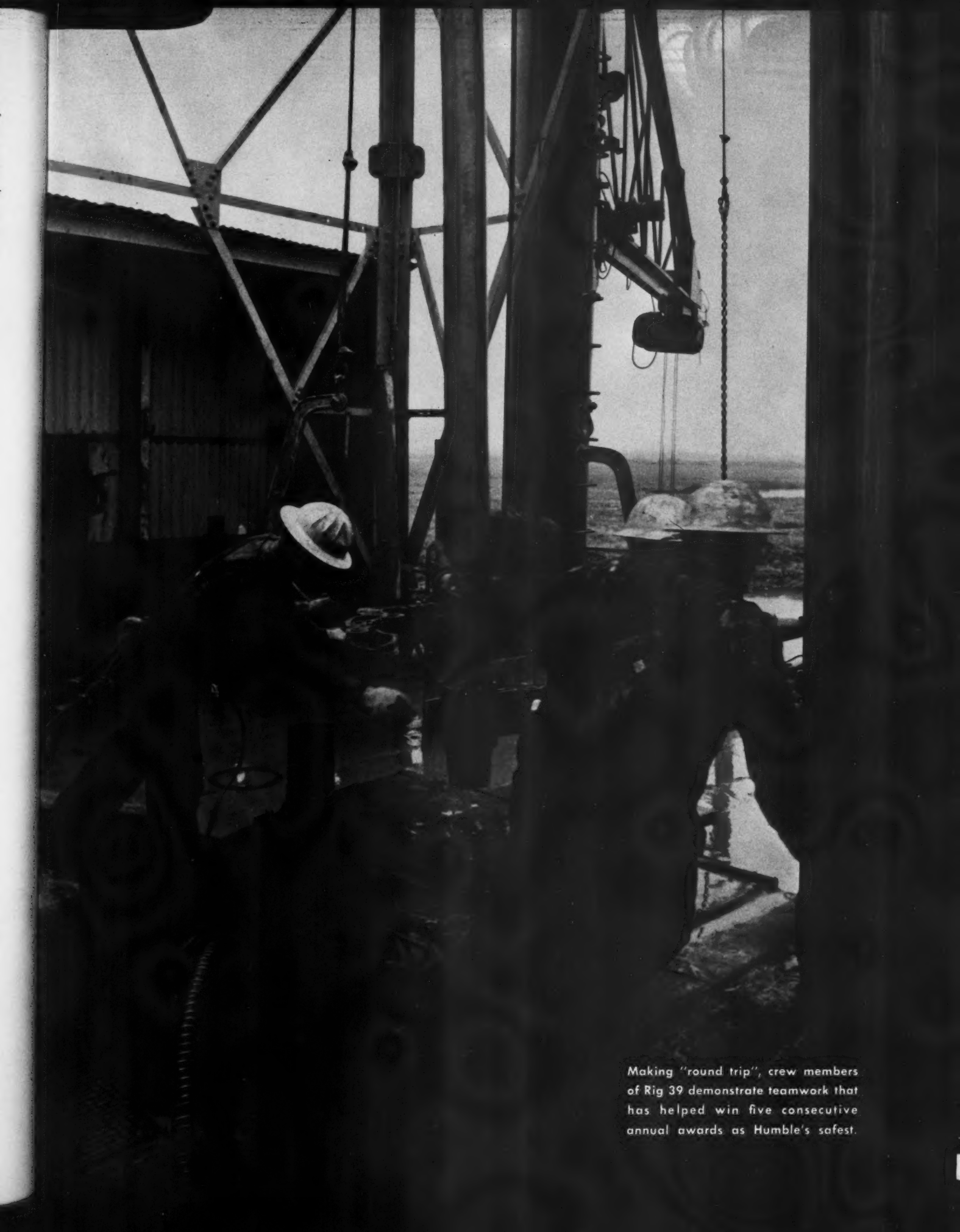
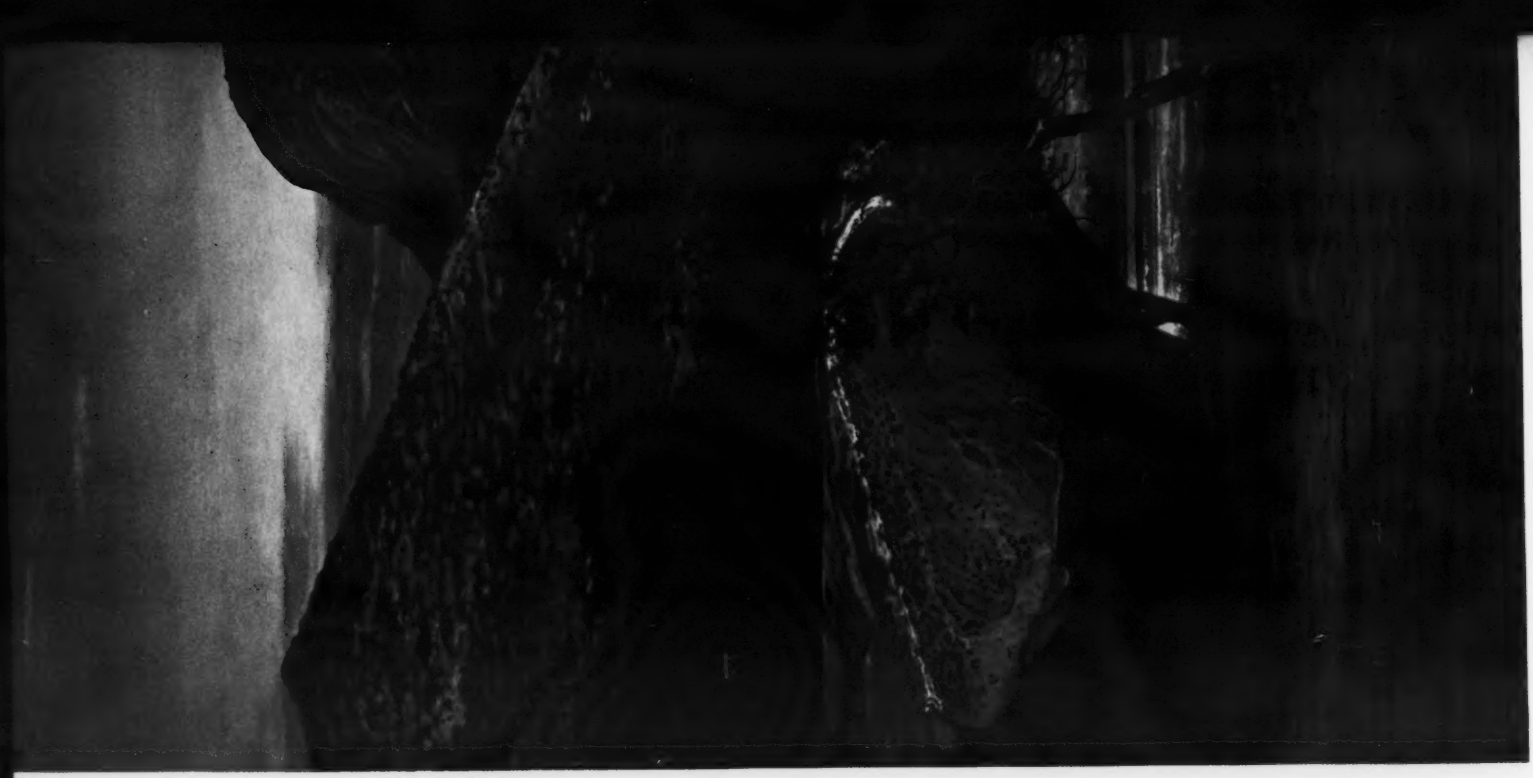
Making "round trip", crew members of Rig 39 demonstrate teamwork that has helped win five consecutive annual awards as Humble's safest.